

REMARKS

In the Office Action, the Examiner rejected claim 25 pursuant to 35 U.S.C. § 112, second paragraph, as indefinite. Claim 25 has been amended into independent form without the electrical trace supporting material alternating with the attenuating material. Claim 25 is definite.

Claim 13 was rejected pursuant to 35 U.S.C. § 102(b) as being anticipated by Kawabe et al. (U.S. Patent No. 4,825,115). Claim 13 has been cancelled in order to expedite any allowance and may be later pursued.

Claims 14-24 and 26 were rejected pursuant to 35 U.S.C. § 103(a) as being unpatentable over Kawabe et al. in view of Gilmore (U.S. Patent No. 6,043,590). Applicants respectfully request reconsideration of the rejections of claims 14-24 and 26.

Independent claim 14 recites electrical traces on flexible circuit material layers exposed on a first surface at a first pitch and the flexible circuit material layers extending from an opposite surface with a second pitch greater than the first pitch. Kawabe et al. and Gilmore do not disclose these limitations.

As noted by the Examiner, Kawabe et al. do not disclose the traces or the trace supporting material diverging from the Z-axis. Gilmore is relied on for this teaching.

Gilmore provides backing for linear or curved arrays (Col. 1, lines 24-27). To support a curved array, the backing with traces is arcuate (Col. 3, lines 49-54; and Figs. 5a and 6a). On the arcuate (front) surface, the distal ends of the traces are flush with the distal end (arcuate surface) of the backing block (Col. 2, lines 64-67; and Figs. 5a and 6a). The flex circuit extends from the back or opposite surface (Col. 3, lines 56-58; and Figs. 5a and 6a). The traces by the arcuate surface diverge, creating a greater pitch in the traces by the arcuate surface for mating with elements of the curved array (Figs. 5a and 6a). Gilmore provides greater pitch on the surface where the traces are exposed and lesser pitch on the surface from which the flex circuits extend. Gilmore does not suggest greater pitch for the surface from which the flex extends.

Additionally, Gilmore suggests fanning the traces, not flex material having a greater pitch on one surface than the traces on another surface.

Kawabe et al. show the flex material extending from both ends of the backing.

However, Gilmore teaches away from such a structure (Col. 1, lines 36-41 and 51-57 and Col. 1, line 65 – Col. 2, line 6). A person of ordinary skill in the art would not have used the teachings of Gilmore with the flex material extension by the array of Kawabe et al.

Independent claim 15 recites the electrical trace supporting material diverging from the z-axis. As discussed above for claim 14, Kawabe et al. do not show divergence and Gilmore only teaches divergence of the traces, not the trace supporting material. Gilmore in general seeks alignment with the elements of the array, so does not suggest divergence of the trace supporting material.

The dependent claims depend from claim 15, so are allowable for the same reasons. Further limitations distinguish from the cited art. For example, the cited references do not disclose M layers of trace supporting material and M+1 layers of attenuating material as claimed in claim 19. As another example, the cited references do not disclose divergence by different amounts as claimed in claim 24.

Independent claim 25 recites the attenuating material comprising trace supporting material diverging from the Z-axis. As discussed above, the cited references do not suggest supporting material, including the attenuating blocks, diverging from the Z-axis.

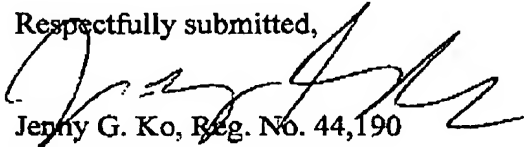
CONCLUSION:

Applicants respectfully submit that all of the pending claims are in condition for allowance and seeks early allowance thereof. If for any reason, the Examiner is unable to allow the application but believes that an interview would be helpful to resolve any issues, he is respectfully requested to call the undersigned at (650) 694-5810 or Craig Summerfield at (312) 321-4726.

PLEASE MAIL CORRESPONDENCE TO:

Siemens Corporation
Customer No. 28524
Attn: Elsa Keller, Legal Administrator
170 Wood Avenue South
Iselin, NJ 08830

Respectfully submitted,



Jenny G. Ko, Reg. No. 44,190
Attorney(s) for Applicant(s)
Telephone: (650) 694-5810
Date: 4/5/06